

This is a RED Stamp

**ROCKY FLATS PLANT
EMD OPERATING
PROCEDURES MANUAL**

Manual No.: 5-21200-OPS-EE
Procedure No.: Table of Contents, Rev 3
Page: 1 of 2
Effective Date: 09/01/92
Organization: Environmental Management

THIS IS ONE VOLUME OF A SIX VOLUME SET WHICH INCLUDES:

VOLUME I: FIELD OPERATIONS (FO)
VOLUME II: GROUNDWATER (GW)
VOLUME III: GEOTECHNICAL (GT)
VOLUME IV: SURFACE WATER (SW)
VOLUME V: ECOLOGY (EE)
VOLUME VI: AIR (AP)

**TABLE OF CONTENTS
FOR VOLUME V: ECOLOGY**

<u>Procedure No.</u>	<u>Title</u>	<u>Rev. No.</u>	<u>Effective Date</u>
EE.01	Sampling of Periphyton	1	5/91
EE.02	Sampling of Benthic Macroinvertebrates	1	5/91
DCN 92.01	Clarification of Benthic Macroinvertebrates	1	09/01/92
EE.03	Sampling of Plankton	1	5/91
EE.04.	Sampling of Fishes	1	5/91
DCN.92.01	Add Paper Scale Envelopes	1	09/01/92
DCN 92.02	Clarification of Fish Sampling	1	09/01/92
DCN 92.03	Clarification of Fish Sampling	1	09/01/92
DCN 92.04	Clarification of Fish Sampling	1	09/01/92
DCN 92.05	Clarification of Fish Sampling	1	09/01/92
EE.05	Sampling of Large Mammals	1	5/91
EE.06	Sampling of Small Mammals	1	5/91
EE.07	Sampling of Birds	1	5/91

REVIEWED FOR CLASSIFICATION/UCNI

By

Date

DOCUMENT CLASSIFICATION REVIEW WAIVER
PER R.R. HOFFMAN, CLASSIFICATION OFFICER
JUL 11, 1991

ADMIN RECORD.

A SW 000470

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ENVIRONMENTAL MANAGEMENT

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Manual No.: 5-21200-OPS-EE
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Page: 2 of 2
Effective Date: 09/01/92
Organization: Environmental Management

<u>Procedure No.</u>	<u>Title</u>	<u>Rev. No.</u>	<u>Effective Date</u>
EE.08	Sampling of Reptiles and Amphibians	1	5/91
EE.09	Sampling of Terrestrial Arthropods	1	5/91
EE.10	Sampling of Vegetation	1	5/91
DCN 91.01	Superseded by DCN # 92.01	1	08/11/92
DCN 92.01	To Clarify Methods for Conducting Vegetation Surveys	1	08/11/92
EE.11	Identification of Habitat Types	1	5/91
EE.12	Sampling of Soil for Soil Description	1	5/91
EE.13	Development of Ecology Field Sampling Plans	1	5/91
DCN 91.01	Superseded by DCN # 92.01	1	08/11/92
DCN 92.01	The Outline for a Field Sampling Plan is Modified	1	08/11/92
APPA	Appendix A: Species Codes Assignment of Species Codes	1	5/91
APPB	Appendix B: Wildlife Habitat Code Assignment of Wildlife Habitat Codes	1	5/91

**ENVIRONMENTAL MANAGEMENT
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Page 1 of 1

Sampling of Benthic Macroinvertebrates	Date 8/24/92	DCN Number 92.01 KCM
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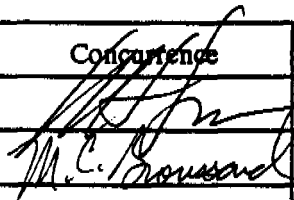
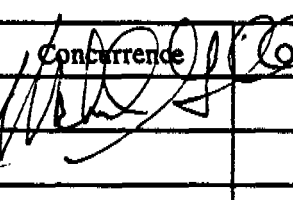
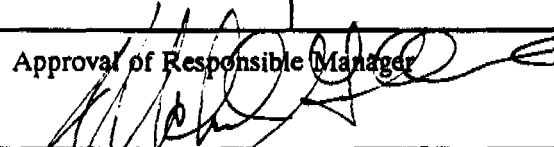
Expires 11/24/92 Procedure Revision Required X Yes No

Scope Limitation: OU 3

Item Number	Page	Step or Paragraph	Changes (Use DCN CONTINUATION SHEET for additional space)
1	13	6.3.2	Delete "distilled" in the fifth bullet.
2	13	6.3.3	Replace the first sentence with the following: Transfer the sample from the bucket or tub into the sample container using a squirt bottle and distilled, tap, or local water, according to the project FSP, taking precautions so foreign material is not introduced into the sample.

Justification (Reason for change - Provide numbers to reference corresponding items above.)

- Since the benthic macroinvertebrates live in the ambient water, local water should be acceptable for concentrating the sample in the benthic wash bucket, and transferring the sample to the sample jar. For some specific projects, health and safety concerns or other issues may call for the use of tap or distilled water.
- Same as 1.

Concurrence	Organization	Req.	Date	Concurrence	Organization	Req.	Date
	QAPM	X	9/1/92		User		8/24/92
	EOM	X	8/28/92				
Approval of Responsible Manager 		Date 8/24/92		Is Posting required? <u> </u> Yes <u> </u> No		If Yes, by what date? Date posted	

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Procedure Number EE.4, Rev 0, 5-21200 -OPS

Page 1 of 1

Title <u>Sampling of Fishes</u>	Date <u>8/24/92</u>	DCN Number <u>8201 KQ.m.</u>
Expires <u>11/24/92</u> Procedure Revision Required <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Scope Limitation <u>OU-3</u>		

Item Number	Page	Step or Paragraph	Changes (Use DCN CONTINUATION SHEET for Additional Space)
1	5	5.0	Add "or scale envelopes" to the end of the sixth bullet.

Justification (Reason for Change – Provide Numbers To Reference Corresponding Items Above)

- Paper scale envelopes are adequate, if scales are placed within a liner to prevent the scales from adhering to the envelope.

Concurrence	Organization	Req	Date	Concurrence	Organization	Req	Date
	QAPM	X	9/1/92		User	X	8/25/92
	EOM	X	8/28/92				
Approval of Responsible Manager				Date <u>8/25/92</u>		Is Posting Req'd? <input type="checkbox"/> Yes <input type="checkbox"/> No	
						If Yes, By What Date?	
						Date Posted	

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Procedure Number EE.4, Rev 0, 5-21200-OPS

Page 1 of 1

Title Sampling of Fishes	Date 8/24/92	DCN Number 2202 K.A.M.
Expires <u>11/24/92</u> Procedure Revision Required <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Scope Limitation <u>OU-3</u>		

Item Number	Page	Step or Paragraph	Changes (Use DCN CONTINUATION SHEET for Additional Space)
1	2	2.0	In last sentence of the second paragraph, replace "larger fish" with "fish may".

Justification (Reason for Change – Provide Numbers To Reference Corresponding Items Above)

1. Fish scales may not be collected from all fish, depending upon the objectives stated in the FSP. If scales are collected for age/length ratios, fish from entire size range should be used.

Concurrence	Organization	Req	Date	Concurrence	Organization	Req	Date
<i>[Signature]</i>	QAPM	X	9/1/92	<i>[Signature]</i>	User	X	8/25/92
<i>M.C. Bruns</i>	EOM	X	8/28/92				

Approval of Responsible Manager <i>[Signature]</i>	Date <u>8/25/92</u>	Is Posting Req'd? <input type="checkbox"/> Yes <input type="checkbox"/> No	If Yes, By What Date?	Date Posted
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Procedure Number EE.4, Rev 0, 5-21200-OPS

Page 1 of 1

Title Sampling of Fishes	Date 8/24/92	DCN Number 92.03 K.A.M.
Expires <u>11/24/92</u>	Procedure Revision Required <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Scope Limitation <u>OU-3</u>		

Item Number	Page	Step or Paragraph	Changes (Use DCN CONTINUATION SHEET for Additional Space)
1	6	6.2.1	In the third sentence, add "lake or" before "pond" and "by floats or" before "by stakes".

Justification (Reason for Change -- Provide Numbers To Reference Corresponding Items Above)

1. The only way to mark a sampling location within the the lakes is by floats because of the depth.

Concurrence	Organization	Req	Date	Concurrence	Organization	Req	Date
	QAPM	X	9/1/92		User	X	8/25/92
	EOM	X	8/28/92				
Approval of Responsible Manager		Date	8/25/92	Is Posting Req'd? <input type="checkbox"/> Yes <input type="checkbox"/> No		If Yes, By What Date? Date Posted	

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Procedure Number EE.4, Rev 0, 5-21200-OPS

Page 1 of 1

Title Sampling of Fishes	Date 8/24/92	DCN Number 92.04 K.A.M.
Expires <u>11/24/92</u> Procedure Revision Required <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Scope Limitation <u>OU-3</u>		

Item Number	Page	Step or Paragraph	Changes (Use DCN CONTINUATION SHEET for Additional Space)
1	7	6.2.3	<p>Add the following sentence after the fifth sentence :</p> <p>If a block net is used, electrofishing may proceed upstream or downstream, towards the blocking net.</p>

Justification (Reason for Change – Provide Numbers To Reference Corresponding Items Above)

1. If a blocking net is used, electrofishing could be conducted either upstream or downstream.

Concurrence	Organization	Req	Date	Concurrence	Organization	Req	Date
	QAPM	X	9/1/92		User	X	8/25/92
	EOM	X	8/28/92				

Approval of Responsible Manager 	Date 8/25/92	Is Posting Req'd? <input type="checkbox"/> Yes <input type="checkbox"/> No	If Yes, By What Date?	Date Posted
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 Procedure Number EE.4 Rev 9, 5-21200-OPS *K.A.M.*

Page 1 of 3

Title Sampling of Fishes	Date 8/21/92	DCN Number 9205 K.A.M.
Expires <u>11/21/92</u>	Procedure Revision Required <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Scope Limitation <u>OU-3</u>		

Item Number	Page	Step or Paragraph	Changes (Use DCN CONTINUATION SHEET for Additional Space)
1	8	6.2.5	In the first paragraph, delete "weight" in the second sentence and add the following after the second sentence: Weight would be recorded for individuals of the more common species, and for all fish saved for tissue analyses.
2	8	6.2.5	In the first paragraph, fifth sentence, add "or scale envelopes" after "glassine envelopes" and replace "sample number assigned" with "information needed to tie the scales."

Justification (Reason for Change – Provide Numbers To Reference Corresponding Items Above)

- 1) Depending on project objectives, it may not be necessary to weigh every individual fish. It would be very time consuming, for example, to weigh all individuals if the catch included 50 or more fathead minnows.
- 2) A separate sample number may not be assigned to every fish. In these cases, the data on the scale envelope should provide the information necessary to tie back to the data sheet prepared for that catch.

Concurrence	Organization	Req	Date	Concurrence	Organization	Req	Date
<i>[Signature]</i>	QAPM	X	7/1/92	<i>[Signature]</i>	User	X	8/25/92
<i>M.C. Brown</i>	EOM	X	8/25/92				
Approval of Responsible Manager <i>[Signature]</i> Date <u>8/25/92</u>				Is Posting Req'd? <input type="checkbox"/> Yes <input type="checkbox"/> No		If Yes, By What Date?	
						Date Posted	

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Procedure Number EE.4 Rev 0, 5-21200-OPS

Page 2 of 3

Title Sampling of Fishes	Date 8/21/92	DCN Number
Expires <u>11/21/92</u> Procedure Revision Required <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Scope Limitation <u>OU-3</u>		

Item Number	Page	Step or Paragraph	Changes (Use DCN CONTINUATION SHEET for Additional Space)
3	8	6.2.5	In the first paragraph, third sentence from the bottom, add ",plastic bags," after "teflon bags."
4	8	6.2.5	In the first paragraph, third sentence from the bottom, add ",fresh ice," after "Blue Ice."

Justification (Reason for Change – Provide Numbers To Reference Corresponding Items Above)

- 3) Fish collected for radiological or metals analyses may be placed in plastic bags rather than in teflon bags or aluminum foil.
- 4) Fresh fish are more effectively cooled in the field by using fresh ice. Samples should be sealed in plastic bags or aluminum foil prior to being iced.

Concurrence	Organization	Req	Date	Concurrence	Organization	Req	Date
<i>[Signature]</i>	QAPM	X	<i>9/1/92</i>	<i>[Signature]</i>	User	X	<i>8/25/92</i>
<i>M.C. Brown</i>	EOM	X	<i>8/28/92</i>				

Approval of Responsible Manager <i>[Signature]</i>	Date <i>8/25/92</i>	Is Posting Req'd? <input type="checkbox"/> Yes <input type="checkbox"/> No	If Yes, By What Date?	Date Posted
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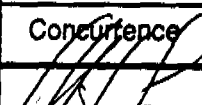
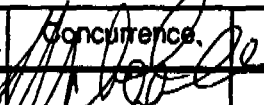
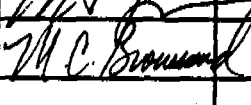
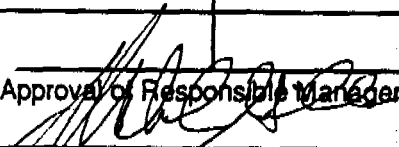
Page 3 of 3

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Expires <u>11/21/92</u>	Procedure Revision Required <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Scope Limitation <u>OU-3</u>		

Item Number	Page	Step or Paragraph	Changes (Use DCN CONTINUATION SHEET for Additional Space)
5	8	6.2.5	In the first paragraph, replace the second to the last sentence with the following: Fish should be maintained in the cooler for no more than 4 to 6 hours before being taken to the laboratory (if local) or place in a refrigerator. Tissue samples (whole body, muscle, or other organs) should be prepared and frozen within 4 to 48 hours after collection. Tissue samples to be analyzed for metals or radionuclides may be refrigerated up to 48 hours, but tissues for organic volatiles should be frozen within 4 hours. Also, add "Frozen" to before "Fish" and delete "field" in the last sentence.
6	8	6.2.5	In the second paragraph, first sentence, delete "ice-cold."

Justification (Reason for Change – Provide Numbers To Reference Corresponding Items Above)

- 5) Fish collected for tissue analysis of metals or radionuclides may be held on ice or refrigerated for at least 24 hours without impacting the analyses.
- 6) Fish preserved for taxonomic identification can be preserved in 10% neutral formalin. There is no need to keep that formalin ice-cold.

Concurrence	Organization	Req	Date	Concurrence	Organization	Req	Date
	GAPM	X	8/1/92		User	X	8/25/92
	EOM	X	8/25/92				
Approval of Responsible Manager 				Date <u>8/25/92</u>			
Is Posting Req'd?				If Yes, By What Date?			
<input type="checkbox"/> Yes <input type="checkbox"/> No				Date Posted			